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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,546	12/05/2003	Hisayoshi Tsubaki	2091-0302P	7320

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EXAMINER

PETERSON, CHRISTOPHER K

ART UNIT	PAPER NUMBER
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2622

NOTIFICATION DATE	DELIVERY MODE
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06/24/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/727,546	Applicant(s) TSUBAKI, HISAYOSHI	
	Examiner CHRISTOPHER K. PETERSON	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,7-9,12-18 and 25-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4 and 7-9 is/are allowed.
- 6) ☒ Claim(s) 12-18 and 25-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/18/2009 has been entered.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 6/16/2009 was filed after the mailing date of the Advisory Action on 3/25/2009. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Examiner notes the Applicant's Representative's request for another copy of the IDS dated 6/19/2007. A copy of the requested IDS will be part of this action.

Claim Objections

3. Claim 12 is objected to because of the following informalities:

Claim 12 cites the limitation "image communication unit" on lines 8 and 9.
Should read "wireless image communication unit".

Appropriate correction is required.

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4. Claims 12, 14 - 16, 18, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaku (US Patent Pub. # 2002/0049728) in view of Carlson US Patent # 6,694,151).

As to claim 12, Kaku teaches an imaging system comprising:

- a terminal device (transmitter 360) carried by a subject ,the terminal device (360) including an integral terminal communicator (cellular phone) to communicate a unique identification code (character ID) to a controller associated with one or more cameras (camera 40) when the terminal device (360) is within the operative range of the one or more cameras (40) and also includes a display (on cellular phone) to display images obtained by the one or more cameras(40) (Para 197 and 25). Kaku teaches a transmitter with an ID card and a cellular phone. A cellular phone is well known in the art to have a display.
- a wireless image communication unit (receiver 370) included with each of the one or more cameras (40) for providing wireless data communication to the subject carried terminal (360) device from the **wireless** image communication unit (370) and for receiving wireless data communication; and
- the wireless image communication unit (370) of one of the one or more cameras (40) receiving the unique identification code (character ID) from the terminal device (360) and upon receipt of the unique identification code (character ID), the controller (20) associated with each of the one or

more cameras (40) driving a respective one of the one or more cameras (40) to photograph one or more images of the subject (character), and to communicate the one or more images of the subject so photographed to the terminal device (360) (Para 87 and 179),

Kaku teaches wherein at least the wireless image communication unit (370) of one of the one or more cameras (40) that receives the unique identification code (character ID) from the terminal device (360) includes communication range restricting means for limiting wireless data transmission and reception of the wireless image communication unit of one of the one or more cameras (40) and wireless data reception by the wireless image communication unit (370) of one of the one or more cameras (40) to be in a direction in common with an imaging direction of the associated one or more cameras (40) (Para 179). Kaku shows in figure 24 the receiver (370) initiates an image capture only when the transmitter (360) is in the image capture region. Kaku teaches at least one of the radio waves transmitted and received between the transmitter and the receiver is directive (Para 27). Kaku does not specifically teach a restricted angular range corresponding an angle of view of the associated one or more cameras. For clarity purposes the Carlson reference teaches digital camera that incorporate digital wireless RF communication systems operating in a microwave band such as the 2.4 to 2.5 GHz ISM (Industrial Scientific and Medical) Band. Such communication is useful, for example, for sending digital imaging data at high data rates; e.g. rates equal and greater than 10 Mega bits per second (Mbps) (Col. 1, lines 7 – 13). Carlson (Fig. 5) teaches a faraday cage (54) on the inside of the camera body (56) (Col. 5, lines 8 – 24).

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Carlson teaches an imaging communication means (antenna elements 42 and 48) is substantially within an imaging angle of view of the associated imaging means (camera 12). Carlson teaches a restricted angular range (in the same direction as the lens) corresponding an angle of view of the associated one or more cameras (40) (Col. 4, lines 15 - 28). Examiner analyzes restricted angular range to mean only the area in front of the camera. The faraday cage of Carlson eliminates the ability to receive signals from any direction except for the front of the camera. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a directional antenna mounted in a camera body with a faraday cage as taught by Carlson to the receiver and camera of Kaku, because antenna apparatus for digital cameras that incorporates wireless RF transceivers for communicating digital images and an improved means of transmission and reception when operating in microwave bands in the presence of signal absorption and multipath fading and the effects of the human body (Col. 3, lines 18 – 23).

As to claim 14, Kaku teaches the imaging system as defined in claim 12, further comprising: an image server (image database 120) for storing the images obtained by the one or more cameras (40) (Para 130).

As to claim 15, Kaku (Fig. 1) teaches the imaging system as defined in claim 12, further comprising: a printer (output unit 60) for printing out the image data obtained by the imaging device (40) (Para 105).

As to claim 16, Kaku (Fig. 15) teaches the imaging system as defined in claim 15, wherein the printer (60) only prints out the image data for which an instruction to

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print has been issued (Para 104 and 105). Kaku teaches the output processing unit 100 executes a process of printing the appointed image on paper.

As to claim 18, this claim refers to the limitations of claim 12. Thus claim 18 is analyzed as previously discussed with respect to claim 12.

As to claim 25, this claim differs from claim 18 only in that substantially was added to the claim 25. The limitation "wherein said controller drives one or more of said cameras **substantially** only when said terminal device is within the field of view of one or more of said cameras" was discussed and rejected in claim 1. Thus claim 25 is analyzed as previously discussed with respect to claim 1 above.

5. Claim 13 and 26 - 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaku (US Patent Pub. # 2002/0049728) in view of Carlson US Patent # 6,694,151) and further in view of Auty (US Patent # 5,809,161).

As to claim 13, note the discussion above in regards to claim 12. Carlson does teach the transceiver 10 is controlled by the microprocessor 18 to transmit and receive digital image files and other information to and from other cameras and communication devices in the neighborhood of the camera 12 (Col. 4, lines 15 - 28). Examiner analyzes this to mean the camera will only transmit and receive images that are located within the restricted angular range. Kaku in view of Carlson do not specifically teach plurality of the cameras is provided with overlapping imaging ranges. Auty reference teaches a two camera system where the detection camera 6 has a wide field of view 12 of part of a vehicle carriageway 16 which is to be monitored by the node 2 and the

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image acquisition camera 8 has a narrow field of view and has a high resolution image of the front of the vehicle 18 is obtained from which considerable identifying information can be derived, such as vehicle type and license plate details, by subsequent digital electronic processing of the image. Auty (Fig. 1) teaches a plurality of the cameras (vehicle detection camera 6 and image acquisition camera 8) are provided with overlapping imaging ranges (field of view 12 for vehicle detection camera 6 and field of view 20 of the acquisition camera 8) (Col. 4, line 53 – Col. 5, line 31). Auty teaches the detection camera 6 and the control unit 10 is able to monitor all of the moving vehicles 18 and 22 within the field of view 12 whilst acquiring the images of selected vehicles at the location 22. For a multi-lane carriageway 21, as shown in FIG. 4, the field of view 12 of the detection camera 6 extends over all of the lanes 23 and 25 of the carriageway and an image acquisition camera 8 is provided for each lane 23 and 25 (Col. 5, lines 32 – 43). Auty teaches both the detection camera 6 and the image acquisition camera 8 capture images when the moving vehicles 18 move into the field of view (12 and 20) of the respective camera (6 and 8). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the vehicle monitoring system with a plurality of the cameras is provided with overlapping imaging ranges as taught by Auty to the image capture system of in view of Kaku in view of Carlson, to provide a system which can detect the average speed of a vehicle over a relatively long distance and a system which can monitor vehicles in more than one lane of a multi-lane carriageway (Col. 2, lines 15 - 32).

As to Claim 26, this claim differs from Claims 12 and 13 only in that the Claim 26 is a combination of Claims 12 and 13. Thus Claim 26 is analyzed as previously discussed with respect to Claims 12 and 13 above. Applicant's Remarks, Pg. 14 cites new claim 26 essentially combines the subject matter of previously presented claims 12 and 13.

As to Claims 27 - 29, these claims differ from Claims 14 - 16 only in that the Claims 14 - 16 depend on Claim 12 whereas Claims 27 - 29 depend on Claim 26. Thus Claims 27 - 29 are analyzed as previously discussed with respect to Claims 14 - 16 above.

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaku (US Patent Pub. # 2002/0049728) in view of Carlson (US Patent # 6,694,151) and further in view of Moores (US Patent Pub. # 2004/0201738).

As to claim 17, Note the discussion above. Kaku teaches a cellular phone as a terminal device and Carlson teaches the camera is able to communicate with other cameras and communication devices. Kaku in view of Carlson do not teach a print instruction issued by the terminal device. Moores reference teaches a method and apparatus to provide automatic access to images captured at recreational venues. Moores teaches the imaging system as defined in claim 16, wherein the instruction to print can be issued at the terminal device (PDA) (Para 0022). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the terminal device the ability to print images taught by Moores to the

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image data of in view of Kaku in view of Carlson, because handling and distribution of copies of the resultant photographs has taken place by relatively rudimentary and cumbersome mechanisms (Para 4).

7. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaku (US Patent Pub. # 2002/0049728) in view of Carlson US Patent # 6,694,151), further in view of Auty (US Patent # 5,809,161), and further in view of Moores (US Patent Pub. # 2004/0201738).

As to claim 30, this claim differs from claim 17 only in that the claim 17 depends on claim 16 whereas claim 30 depends on claim 29. Thus claim 30 is analyzed as previously discussed with respect to claim 17 above.

Allowable Subject Matter

8. Claims 1, 2, 4, 7, 8, and 9 allowed.

9. The following is an examiner's statement of reasons for allowance:

As to independent claim 1, the prior art does not teach or fairly suggest an imaging system for interaction with one or more subject carried terminal devices, the one or more terminal devices including a display capable of displaying images and a communication device to enable communication therewith, the imaging system comprising: at least one imaging means for photographing a subject carrying a terminal device and for obtaining image data representing an image of the subject; an imaging communication means included with each associated imaging means for providing

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wireless data communication to the subject carried terminal devices from the imaging communication means and for receiving wireless data communication from the subject carried terminal devices; and a control means for controlling the operation of the imaging means so that: the imaging means is driven to obtain image data when the terminal device carried by the subject and the imaging communication means become able to communicate with each other to determine the subject is within the image data to be obtained by the imaging means; and communication range restricting means for limiting wireless data transmission from the imaging communication means and wireless data reception by the imaging communication means to be in an angular range along a direction in common with an imaging direction of the associated imaging means, wherein the communication range restricting means further restricts the angular range to have an angular extent that matches an imaging angle of view of the associated imaging means, and the control means controls the imaging communication means to transmit image data representing the image of the subject obtained by the imaging means to the terminal device of the subject carrying the terminal device that is in the angular range of the communication range restricting means for display thereon.

As to claims 2, 4, and 7 - 9, these claims are dependent upon allowable claim 1 and are thus also considered allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER K. PETERSON whose telephone number is (571)270-1704. The examiner can normally be reached on Monday - Friday 6:30 - 4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Sinh can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. K. P./
Examiner, Art Unit 2622
6/18/2009

/Sinh Tran/
Supervisory Patent Examiner, Art Unit 2622